

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): In a valve including a metal valve body that defines a flow chamber having a port with an annular seat and a metal valve stem having a central axis and rotatable within said metal valve body movably mounted in relation to said metal valve body for moving a soft tip towards and outwardly from said annular seat, an improvement for sealing an annulus between said metal valve body and said soft tip, said improvement comprising:

(a) ~~A~~ a conical shaped soft tip ~~material~~ having a tip diameter smaller ~~then~~ than said annular seat and a maximum diameter larger ~~then~~ than said annular seat[.];

(b) ~~Cylindrical~~ cylindrical mounting means on said metal valve stem of said conical shaped soft tip with an inwardly facing annular shoulder and a hole to align said conical shaped soft tip ~~coaxial~~ coaxially to said metal valve stem and said ~~body~~ annular seat[.]; and

(c) ~~Retaining~~ retaining means on said metal valve stem of said conical shaped soft tip consisting of a thin tubular section greater than the diameter of said conical shaped soft tip for effectively retaining ~~the~~ said conical shaped soft tip as it is moved toward and outwardly from said annular seat during each successive forcing of said conical shaped soft tip against said ~~body~~ annular seat as the said conical shaped soft tip is cold formed to the shape of said ~~seat~~ annular seat[.];

wherein said retaining means limits the inward movement of said conical shaped soft tip towards said annular seat; said retaining means acts as a secondary metal to metal seal; said retaining means extends beyond said annular shoulder of said metal valve stem to be effectively cold formed in the desired conical shape thereby capturing said conical shaped soft tip; said retaining means limits the radial expansion of said conical shaped

Appl. No. 10/065,667
Amdt. Dated August 11, 2004
Reply to Office action of February 11, 2004

soft tip; said retaining means allows rotation of said conical shaped soft tip with respect to said metal valve stem; and during high axial force contact with said annular seat, said conical shaped soft tip does not rotate relative to said annular seat.

Claim 2 (canceled)

Claim 3 (canceled)

Claim 4 (canceled)

Claim 5 (canceled)

Claim 6 (canceled)

Claim 7 (amended): The A valve of claim 1 wherein ~~the~~ said conical shaped soft tip material is made from an engineered polymer (~~e.g., Delrin®~~).

Claim 8 (new): A valve of claim 7 wherein said engineered polymer is Delrin®.